

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	ATTY. DOCKET NO. P50881-2C1	SERIAL NO. 10/074,639
<b>INFORMATION DISCLOSURE STATEMENT</b> <b>BY APPLICANT</b> (Use several sheets if necessary)		APPLICANT Marquis, Jr., et al.	
		FILING DATE February 13, 2002	GROUP Not Assigned 1624

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
BC	DV	EP 0 808 839 A1	11/26/97	EPO	<del>E07D</del>	<del>303/48</del>		

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)


EXAMINER Brenda Coleman	DATE CONSIDERED Dec. 24, 2003
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BY APPLICANTAPPLICANT  
Thompson *et al.*FILING DATE  
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(Use several sheets if necessary)

## U.S. PATENT DOCUMENTS

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			Technology Center 2600			

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
BC	DW	WO 98/12211	03/1998	PCT	<del>C07K</del>	<del>5/078</del>		

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Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
BC	AA	4,447,419	05/1984	G. Quadro	424	177	
BC	AB	5,523,313	06/1996	Nunami, et al.	514	365	
BC	AC	5,395,824	03/07/95	Higuchi, et al.	514	19	
BC	AD	5,424,325	06/13/95	Ando, et al.	514	357	
BC	AE	5,422,359	06/06/95	Ando, et al.	514	365	

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		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
BC	AF	EP 0 504 938A2	03/1992	EPO	—	—		
BC	AG	WO 94/23033	10/1994	PCT	—	—		
BC	AH	WO 96/40737	12/1996	PCT	—	—		
BC	AI	WO 96/13523	05/1996	PCT	—	—		
BC	AJ	EP 0 611 756 A2	08/1994	EPO	—	—		
BC	AK	WO 94/04172	03/1994	PCT	—	—		

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BC	AL	Bossard, et al., (1996), J. of Bio. Chem., Vol. 271, No. 21, pp. 12517-12524.
BC	AM	Bromme, et al., (1996), Biochemical Journal, Vol. 315, pp. 85-89, especially abstract, Figure 1.
BC	AN	Velasco, et al., (1994), J. of Bio. Chem; Vol. 269, No. 43, pp. 27136-27142, especially the abstract.
BC	AO	Magrath, et al., (1992), J. of Med. Chem; Vol. 35, No. 23, pp. 4279-4283, especially page 4281, column 1, structures 1-4 and 7.
BC	AP	Graybill, et al., (1992), Bioorganic & Medicinal Chemistry Letters; Vol. 2, No. 11, pp. 1375-1380, especially page 1377, Scheme I.
BC	AQ	Palmer, et al., (1995), J. of Med. Chem; Vol. 38, No. 17, pp. 3193-3196.
BC	AR	Danheiser, (1995), Genetic Engineering News; Vol. 15, No. 17, pp. 1-1 and 35-36.
BC	AS	Rasnick, (1996), Perspectives in Drug Discovery & Design; Vol. 6, pp. 48-63.

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BC	AT	5,501,969	03/26/96	Hastings, et al.	435	240.2	
BC	AU	5,057,525	10/1991	G. Van Daele	514	318	
BC	AV	4,994,471	02/1991	Lalinde, et al.	514	326	
BC	AW	5,374,637	12/1994	Van Daele	514	320	

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							Yes	No
BC	AX	EP 0 603 873 A1	06/1994	EPO	—	—		
BC	AY	WO 97/47642	12/1997	PCT	—	—		
BC	AZ	WO 97/47643	12/1997	PCT	—	—		
BC	BA	WO 98/05336	02/1998	PCT	—	—		
BC	BB	WO 98/08802	03/1998	PCT	—	—		
BC	BC	WO97/49668	12/1997	PCT	—	—		

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

BC	BD	Potempa, et al., "Host and <i>Porphyromonas gingivalis</i> proteinases in periodontitis: A biochemical model of infection and tissue destruction", (1994), <i>Perspectives in Drug Discovery and Design</i> , Vol. 2, pp. 445-458
BC	BE	Drake, et al., "Cathepsin K, but Not Cathepsins B, L, or S, Is Abundantly Expressed in Human Osteoclasts", (1996), <i>J. of Biological Chemistry</i> , 271(21), pp. 12511-12516
BC	BF	Bromme, et al., "Human Cathepsin 02, a Matrix Protein-degrading Cysteine Protease Expressed in Osteoclasts", (1996), <i>J. of Biological Chemistry</i> , 271(4), pp. 2126-2132
BC	BG	Delaisse, et al., "In Vivo and In Vitro Evidence for the Involvement of Cysteine Proteinases in Bone Resorption", (1984), <i>Biochemical and Biophysical Research Communications</i> , 125(2), pp. 441-447
BC	BH	Delaisse, et al., "Inhibition of bone resorption in culture by inhibitors of thiol proteinases", (1980), <i>Biochem. J.</i> , 192, pp. 365-368

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BC	BI	5,206,251	04/1993	Khanna, et al.	514	315	
BC	BJ	5,216,168	06/1993	Khanna, et al.	546	242	
BC	BK	5,585,387	12/1996	Lu et al.	514	327	
BC	BL	5,668,128	09/1997	Tsubotani et al.	514	183	
BC	BM	5,142,056	08/1992	Kempe, et al.	546	265	

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							Yes	No
BC	BN	EP 0 623 592	11/1994	EPO	—	—		
BC	BO	WO 92/04371	03/1992	PCT (GB91/01479)	—	—		
BC	BP	WO 98/49152	11/1998	PCT	—	—		
BC	BQ	WO 98/48799	11/1998	PCT	—	—		
BC	BR	WO 98/50342	11/1998	PCT	—	—		
BC	BS	EP 0 525 420 A1	02/1993	EPO (see also US equiv. 5,639,783)	—	—		

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BC	BT	Lerner, et al., "Human Cystatin C, a Cysteine Proteinase Inhibitor, Inhibits Bone Resorption In Vitro Stimulated by Parathyroid Hormone and Parathyroid Hormone-Related Peptide of Malignancy", (1992), <i>J. of Bone and Mineral Research</i> , 7(4), pp. 433-439
BC	BU	Hill, et al., "Inhibition of Bone Resorption by Selective Inactivators of Cysteine Proteinases", (1994), <i>J. of Cellular Biochemistry</i> , 56, pp. 118-130.
BC	BV	Delaise, et al., "The Effects of Inhibitors of Cysteine-Proteinases and Collagenase on the Resorptive Activity of Isolated Osteoclasts", <i>Bone</i> , 8, pp. 305-313, (1987)
BC	BW	Borg, et al., "Synthesis of 1,2,4-Oxadiazole-, 1,3,4-Oxadiazole-, and 1,2,4-Triazole-Derived Dipeptidomimetics", <i>J. Org. Chem.</i> , 60, pp. 3112-3120, (1995)
BC	BX	Boden, et al., "Total Synthesis of Lissoclinamide 5, a Cytotoxic Cyclic Peptide from the Tunicate <i>Lissoclinum patella</i> ", (1994), <i>Tetrahedron. Ltrs.</i> , 35(44), pp. 8271-8274

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BC	BY	4,518,528	05/1985	D. Rasnick	260	112.5 R	
BC	BZ	5,861,298	01/1999	Adams <i>et al.</i> ATG60006-2.	435	226	
BC	CA	5,948,669	09/1999	Field <i>et al.</i>	435	226	
	CB	<del>09/078,314</del>		<del>Field <i>et al.</i></del>			<del>05/13/98</del>

## FOREIGN PATENT DOCUMENTS

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							Yes	No

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BC	CC	Everts, et al., "Degradation of Collagen in the Bone-Resorbing Compartment Underlying the Osteoclast Involves Both Cysteine-Proteinases and Matrix Metalloproteinases", (1992), <i>Journal of Cellular Physiology</i> , 150, pp. 221-231
BC	CD	Shi, et al., "Molecular cloning of human cathepsin O, a novel endoproteinase and homologue of rabbit OC2", (1995), <i>FEBS Ltrs.</i> , 357, pp. 129-134
BC	CE	Inaoka, et al., "Molecular Cloning of Human cDNA for Cathepsin K: Novel Cysteine Proteinase Predominantly Expressed in Bone", (1995), <i>Biochemical and Biophysical Research Communications</i> , 206(1), pp. 89-96
BC	CF	Elmore, et al., "A New Method for Determining the Absolute Molarity of Solutions of Trypsin and Chymotrypsin...", (1968), <i>Biochem J.</i> , 107, pp. 103-107
BC	CG	Barker, et al., "The Reaction of an $\alpha$ -Aza-Amino Acid Derivative with Chymotrypsin and Its Use as a Ligand...", (1974), <i>Biochem J.</i> , 139, 555-563
BC	CH	Gray, et al., " <i>N</i> <sup>6</sup> -Ethylloxycarbonyl- $\alpha$ -Azaornithine Phen...", (1977), <i>Tetrahedron</i> , 33, p. 837-840
BC	CI	Tezuka, et al., "Molecular Cloning of a Possible Cysteine Proteinase Predominantly Expressed in Osteoclasts", (1994), <i>J. Biolog. Chem.</i> , 269(2), pp. 1106-1109
BC	CJ	Gupton, et al., "Reaction of Azapeptides with Chymotrypsin-like Enzymes", (1984), <i>J. Biol. Chem.</i> , 259:7, pp. 4279-4287
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BC	CK	<del>08/860,255</del> 6,274,336	8/2001	<del>P50574</del> Abdel-Meguid et al.	435	23	10/30/96
	CL	<del>09/463,000</del>		<del>P50684</del>			01/14/00
BC	CM	4,038,247	07/1977	Muller et al.	260	45.9	
BC	CN	5,830,850	11/1998	Gelb et al.	514	2	
BC	CO	4,749,792	06/1988	Natarajan, et al.	546	312	
BC	CP	4,638,010	01/1987	Weller, III., et al.	514	423	

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							Yes	No
BC	CQ	WO 95/05192	02/1995	PCT	—	—		
BC	CR	EP 0 543 310	05/1993	EPO	—	—		
BC	CS	EP 0 237 082 A	09/1987	EPO	—	—		
BC	CT	WO 94/00095	01/1994	PCT	—	—		
BC	CU	WO 94/24182 A	09/1995	PCT	—	—		

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BC	CV	Powers, et al., "Reaction of Azapeptides with Human Leukocyte Elastase and Pricine Pancreatic Elastase", (1984), J. Biol. Chem., 259:7, pp. 4288-4294
BC	CW	McConnell, et al., "New Leupeptin Analogues: Synthesis and Inhibition Data", J. Med. Chem, 33, pp. 86-93, (1990)
BC	CX	Umezawa, "Structures and Activities of Protease Inhibitors of Microbial Origin", Meth. Enzymol., pp. 678-695, (1976)
BC	CY	Barrett, et al., "L-trans-Epoxysuccinyl-leucylamido(4-guanidino)butane(E-64) and its analogues...", (1982), Biochem. J., 201, p. 189-198
BC	CZ	Han et al., Azatides: "Solution and Liquid Phase Syntheses of a New Peptidomimetic", (1986), J. Amer. Chem. Soc., 108:11, p. 2539-2544
BC	DA	Grinde, "Selective Inhibition of Lysosomal Protein Degradation By the Thiol Proteinase..." (1982), Biochem. J. Biophys. Acta., 701, pp. 328-333

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BC	DB	WO 97/16433	05/1997	PCT	—	—	

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

BC	DC	Baggio, et al., "From Poor Substrates to Good Inhibitors: Design of Inhibitors for Serine and Thiol Proteases", (1996), <i>Biochem.</i> , 35:11, pp. 3351-3353
BC	DD	Calabretta, et al., "Peptidyl and azapeptidyl methylketones as substrate analog inhibitors of papain and cathepsin B", (1995), <i>Eur. J. Med. Chem.</i> , 30, pp. 931-941
BC	DE	McConnell, et al., "Inhibition Studies of Some Serine and Thiol Proteinases by New Leupeptin Analogues", (1993), <i>J. Med. Chem.</i> , 36, pp. 1084-1089
BC	DF	Kawada, et al., "Polymer Compositions", (1971), <i>Chemical Abstracts</i> , Vol. 83, DN 83: 180329; JP 50058142 (1975)
BC	DG	Castelhano, et al., "Synthesis, Chemistry and Absolute Configuration of Novel Transglutaminase Inhibitors Containing a 3-Halo-4,5-dihydroisoxazole", (1988), <i>Bioorg. Chem.</i> , Vol. 16, No. 3, pp. 335-340
BC	DH	Greenlee, et al., "Azapeptides: A New Class of Angiotensin-Converting Enzyme Inhibitors", (1984), <i>Biochem. &amp; Biophys. Research Communications</i> , 122:2, pp. 791-797
BC	DI	Auger, et al., "Solid-State 13C NMR Study of a Transglutaminase-Inhibitor Adduct", (1993), <i>Biochemistry</i> , Vol. 32, No. 15, pp. 3930-3934
BC	DJ	Database WPIDS on STN, Derwent Publications LTD., (Columbus, Ohio), AN 85-029005, JP 59225172 A (Yamanouchi Pharm Co. LTD), Abstract, (1984)
BC	DK	Thompson, et al., "Design of potent and selective human cathepsin K Inhibitors that span the active site", (1997), <i>Proc. Natl. Acad. Sci. USA</i> , 94, pp. 14249-14254
BC	DL	Yamashita, et al., "Structure and Design of Potent and Selective Cathepsin K Inhibitors", (1997), <i>J. Amer. Chem. Soc.</i> , 119, pp. 11351-11352

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	DN	<del>09/653,815</del>		<del>(P50881-2)</del>			<del>09/01/00</del>

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							Yes	No
BC	DO	WO 99/11637	03/1999	PCT	—	—		
BC	DP	WO 00/38687	07/2000	PCT	—	—		

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BC	DQ	Afridi, et al., "Heterocyclic Rearrangements. Part XIV. Attempts to Activate Ring-opening-Ring-closure Rearrangements with Carbon as the Central Atom", (1976), J.C.S. Perkin Trans I, Vol. 3, pp. 315-320
BC	DR	Kosary, et al., "Synthesis of pyridylthiazoles as antisecretory agents", (1989), <i>Pharmazie</i> , 44:3, pp. 191-193
BC	DS	Sridevi, et al., "Some reactions and rearrangements of isoxazol-3-carbonyl azides and hydrazides", (1990), <i>Indian J. of Chem.</i> , 29B:2, pp. 182-183
BC	DT	Tanner, et al., "Total Synthesis of Balanol, Part I. Enantioselective Synthesis of the Hexahydroazepine Ring via Chiral Epoxides and Axiridines", (1995), <i>Tetrahedron</i> , Vol. 51, No. 21, pp. 6061-6070
BC	DU	Winkler, "Molecular Modeling Studies of "Flap Up" Mannosyl Cation Mimics", (1996), <i>J. Med.Chem.</i> , 39, pp. 4332-4334
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